

Appl. No. 09/864,468
Amdt. Dated February 9, 2004
Reply to Office action of November 26, 2003
Attorney Docket No. P13111
EUS/J/P/04-1022

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method in ~~a second mobile services switching center~~ for updating location information of a mobile station when said mobile station has moved from an area controlled by a first mobile services switching center to an area controlled by a second mobile services switching center, said method comprising:

adding information relating to said mobile station to a second mobile services switching center database in response to said mobile station registering with said second mobile services switching center;

calculating a checksum on said second mobile services switching center database ~~checksum so as to include the said mobile station;~~

sending a home location register checksum to said second mobile services switching center from a home location register;

comparing said home location register checksum and said second mobile services switching center checksum; and

if said home location register checksum and said second mobile services switching center checksum are equal, sending a location registration signal from said second mobile services switching center to said mobile station.

2. (Currently Amended) The method as recited in claim 1, wherein said step of comparing said home location register checksum and said second mobile services switching center checksum further comprises the additional steps of:

sending an error signal from said second mobile services switching center to said

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home location register when said home location register checksum and said second mobile services switching center checksum are not equal;

setting said second mobile services switching center database equal to a previous correct database when said home location register checksum and said second mobile services switching center checksum are not equal;

a) sending all logged mobile stations that have been erased from said home location register to said second mobile services switching center after receiving said error signal at said home location register from said second mobile services switching center; and

subtracting each erased mobile station and adding each newly registered mobile station identities to said previous correct database; and

appropriately adding and subtracting each of said mobile station identities until said home location register checksum and said second mobile services switching center checksum are equal.

3. (Original) A method in an first mobile services switching center for updating location information of a mobile station, said method comprising:

sending a home location register checksum from a home location register to said first mobile services switching center;

subtracting said mobile station from a first mobile services switching center database;

recalculating a first mobile services switching center checksum to account for the subtracted mobile station;

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sending an erasure acknowledge signal from said first mobile services switching center to said home location register; and

comparing said first mobile services switching center checksum to said home location register checksum.

al 4. (Original) The method of claim 3, wherein said step of comparing said first mobile services switching center checksum to said home location register checksum further comprises the additional steps of:

sending a negative acknowledge signal from said first mobile services switching center to said home location register when said home location register checksum and said first mobile services switching center checksum are not equal;

setting said first mobile services switching center database equal to a previous correct database when said home location register checksum and said first mobile services switching center checksum are not equal;

sending all logged mobile stations that have been erased from said home location register to said first mobile services switching center after receiving said error signal at said home location register from said first mobile services switching center;

subtracting each erased mobile station and adding each newly registered mobile station to said previous correct database;

appropriately adding and subtracting each of said mobile stations until said home location register checksum and said first mobile services switching center checksum are equal;

erasing the mobile stations that are resent in said logged erasures; and

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stopping said sending of a negative acknowledge signal from said first mobile services switching center to said home location register when said first mobile services switching center checksum and said home location register checksum are equal.

5. (Cancelled).

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6. (New) A system for updating location information of a mobile station when said mobile station has moved from an area controlled by a first mobile services switching center to an area controlled by a second mobile services switching center, said method comprising:

means for adding information relating to said mobile station to a second mobile services switching center database in response to said mobile station registering with said second mobile services switching center;

means for calculating a checksum on said second mobile services switching center database;

means for sending a home location register checksum to said second mobile services switching center from a home location register;

means for comparing said home location register checksum and said second mobile services switching center checksum; and

means for sending a location registration signal from said second mobile services switching center to said mobile station if said home location register checksum and said second mobile services switching center checksum are equal.

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7. (New) The system as recited in claim 6, wherein said step of comparing said home location register checksum and said second mobile services switching center checksum further comprises the additional steps of:

al sending an error signal from said second mobile services switching center to said home location register when said home location register checksum and said second mobile services switching center checksum are not equal;

setting said second mobile services switching center database equal to a previous correct database when said home location register checksum and said second mobile services switching center checksum are not equal;

sending all logged mobile stations that have been erased from said home location register to said second mobile services switching center after receiving said error signal at said home location register from said second mobile services switching center;

subtracting each erased mobile station and adding each newly registered mobile station identities to said previous correct database; and

appropriately adding and subtracting each of said mobile station identities until said home location register checksum and said second mobile services switching center checksum are equal.
